

551.515 (73)

STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

A tropical disturbance of slight and diminishing intensity passed on a west-northwest course from about latitude 20°, longitude 61°, on September 26, to latitude 25°, longitude 71°, on October 1. Advices were disseminated twice daily, but they were rather indefinite as to its location on account of lack of vessel reports.

A second disturbance also of slight intensity was located south of Swan Island on the morning of the 3d. It advanced slowly northwestward and was last susceptible of identification on the evening of the 4th off the coast of British Honduras. The highest wind velocity reported in connection with this disturbance was 42 miles per hour, by the S. S. *Tolosa* at 1 a. m. of the 3d in latitude 18° 10', longitude 82° 40', approximately.

Another tropical disturbance of slight intensity apparently developed northeast of Turks Island during the 14th-15th and moved slowly northward until the morning of the 16th, when it was central, as near as can be estimated, in latitude 27°, longitude 69°. The S. S. *San Lorenzo* reported a barometer of 29.60, wind west 28 miles on the evening of the 15th in approximate latitude 25° 30', longitude 68° 30'. It then turned eastward and southeastward, but absence of vessel reports prevents tracing its subsequent course. Advices were broadcast twice daily.

Beginning on the 14th and continuing for several days pressure fell slowly over the southwestern Caribbean and Canal Zone region. From reports now available it would seem that a cyclonic circulation existed as early as the 16th, but sufficiently definite information was not available until the evening of the 17th to broadcast information that a tropical disturbance of slight intensity was central about 300 miles north of Colon. The disturbance moved north-northwestward with rapidly increasing intensity, passing near and to the east of Swan Island during the night of the 18th-19th.

The S. S. *Pastores* at 3 p. m. of the 17th, in approximate latitude 14° 20', longitude 81° 30', recorded a barometer of 29.42 and north winds of 28 miles per hour with steady rain. At 10 a. m. of the 18th the S. S. *Atenas*, in approximate latitude 16° 30', longitude 82°, had a barometer of 29.26 inches north, raining, 50 miles, and at noon in nearly the same position reported a barometer of 28.74 north, cloudy and light wind, being apparently at the center of the storm. The lowest barometer 24 hours previous was about 29.40, indicating a decrease of pressure of 0.66 in that time. During the daylight hours of the 19th the center moved almost due north and during the next 12 hours northeast, passing over Nueva Gerona, on the Isle of Pines at 3 a. m., when a calm lasting 30 minutes was noted. Storm warnings were ordered for Key West at midnight of the 19th-20th, and on the following morning hurricane warnings were displayed along the southern Florida coast from Punta Rassa and Punta Gorda to West Palm Beach and storm warnings on the west coast northward to Tampa and on the east coast northward to Titusville. At that time the disturbance was central slightly south of Habana. It then moved on a course about east-northeast, passing over the northern Bahamas during the night of the 20th-21st and over the Bermudas about noon of the 22d.

The barometer at Habana was 713 mm. (28.07 inches) at 11:10 a. m. of the 20th, taking the mean of the oscillations of the barograph. The lowest swing during a furious gust was 700 mm. (27.56 inches). The barom-

eter fell from 727 to 700 mm. in about half an hour, a fall of about 1 inch. Rainfall at Habana during the 20th was 510 mm. (20.08 inches). Damage was enormous in the Isle of Pines and in the Province of Habana. A wind velocity of 99 miles per hour was recorded at Habana up to the time that the tower on which the anemometers were exposed was blown down, and was much higher later.

A maximum velocity of 62 miles per hour from the north was recorded at Key West, with gusts estimated at 80 to 85 miles per hour. At Miami winds reached gale force with an estimated velocity of 70 miles per hour from the north-northeast. While there was some damage on the southeast and extreme southern Florida coast, it was not severe, as the storm center passed some 30 miles off the coast. The lowest barometer at Key West was 29.18 inches at 4:14 p. m. of the 20th. At Miami it was 29.22 at 12:40 a. m. of the 21st. The hurricane passed over Bermuda during the day of the 22d. Hamilton reported lowest barometer 28.45 at 11:45 a. m., with central calm lasting about an hour, and highest wind velocity of 128 miles per hour, northwest. At Prospect the lowest barometer was 28.58 and highest wind velocity 114 miles per hour from northwest. The central calm was experienced; the wind velocity from 11:45 a. m. to noon was only 8 miles per hour, whereas from 10:30 a. m. to 11:30 it was 47 and from 12:30 to 1:30 p. m. it was 114.

At St. Georges the lowest barometer was 28.67 inches between 12:30 and 12:52 p. m., The central calm was also experienced here between 12 and 12:52 p. m.

Advices were disseminated at least twice daily concerning the storm, and special advices were sent to the Bahama Islands and to Bermuda. (See account of this hurricane in Bermuda, p. 428 of this REVIEW.)

The rate of progress of the center from the 16th to the 19th was about 200 miles per day; from the 19th a. m. to 20th p. m., about 350 miles per day; and from the 20th p. m. to the 22d p. m., between 600 and 700 miles per day.

On the morning of the 24th storm warnings were ordered from Hatteras to Eastport and small craft warnings south of Hatteras to Jacksonville in connection with a disturbance of increasing intensity over Tennessee. The disturbance moved northeastward with greatly increased intensity and caused gales from Hatteras northward and strong winds of short duration south of Hatteras to Jacksonville.

Frost warnings were issued on the 7th, 8th, 13th, 15th, 17th, 21st, 24th, 25th, and 26th for portions of this district.—R. H. Weightman.

CHICAGO FORECAST DISTRICT

There was considerable variation in temperature during the month, the mean temperature being below the seasonal normal from the Mississippi Valley eastward and above normal on the central Great Plains. The greatest excess was 5° at North Platte, Nebr., and the greatest deficiency was 4° at Marquette and Sault Ste. Marie, Mich.

The rainfall was distributed most irregularly, the amounts being large from the Lower Lakes southwestward across the Ohio and Middle Mississippi valleys to southeastern Kansas, while in other portions of the Forecast District the precipitation was either below the seasonal normal or only slightly above.

The disturbances, coming largely from the west and reaching in troughs far to the south, increased consider-